



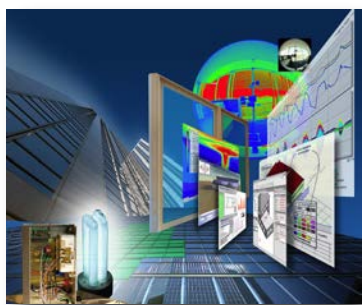
ENERGY is vital to the health and security of the economy and the nation. Cost-effective energy-efficiency and renewable-energy technologies can strengthen the economy, mitigate the effects of energy production and use on the environment, improve the security of energy supplies, and protect human health. Development of such technologies requires a sustained, vigorous program of research on technologies, markets, policies, and behavior.

The mission of Berkeley Lab's **Environmental Energy Technologies Division** is to perform state-of-the-art research and development leading to better energy technologies and reduction of adverse energy-related environmental impacts. Our work increases the efficiency of energy use, reduces its environmental effects, provides the nation with environmental benefits, and helps developing nations achieve similar goals through technical advice.

EETD carries out its work through the support of the **U.S. Department of Energy** (the Division's primary sponsor), other federal entities, state governments and the private sector. Our staff of more than 400 represents a diverse cross-section of fields and skills, ranging from architecture, physics, chemistry, and mechanical engineering to economics and public policy.

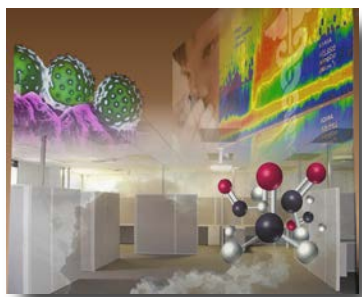
Many staff members have joint appointments at the **University of California, Berkeley**, and the Division draws on students and recent graduates from UC and other academic institutions for research assistants and postdoctoral appointments.





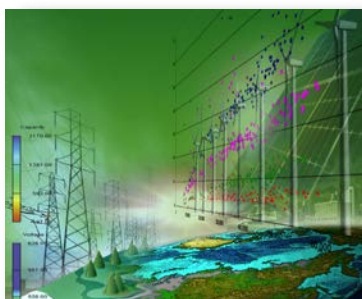
ENERGY EFFICIENCY IN BUILDINGS

- Energy-efficient windows and daylighting systems
- Energy-efficient lighting concepts and systems
- Simulation tools for energy use in buildings
- Integrated information technology for energy efficiency in commercial buildings
- Application of advanced concepts to testbed buildings



INDOOR HEALTH AND ENVIRONMENT

- Advanced ventilation, and thermal distribution systems
- Sources, emissions, chemical reactions, and transport of indoor pollutants
- Air pollutant exposures and health risks
- Control strategies for indoor air quality
- Life cycle impact assessment of energy technologies



ENERGY ANALYSIS

- Carbon markets, energy, and climate change
- Renewable energy sources
- Electric grid reliability
- Energy efficiency standards and labels for appliances, equipment, and lighting
- Demand response research and development
- Industrial energy efficiency
- Energy efficiency in developing countries (special emphasis: China and India)
- End-use energy demand forecasting and policy analysis
- Water and energy
- Life cycle assessments



ADVANCED ENERGY TECHNOLOGIES

- Electrochemical research on batteries
- Combustion and emissions
- Laser and other spectroscopic tools: development and applications



ATMOSPHERIC SCIENCE

- Atmospheric aerosols
- Climate change
- Modeling and simulation
- Urban and regional air quality



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